Transfusion Service Guidelines

Inland Northwest Blood Center

210 W. Cataldo Avenue

Spokane, WA 99201

Overview

In order to provide the safest blood components for patients, Blood Systems (BSI) has established the following guidelines for providing pretransfusion testing and related services.

The Transfusion Service is an FDA registered and AABB and CLIA certified laboratory that provides suitable blood components for transfusion. The laboratory performs compatibility testing and related serological testing procedures in accordance with the current version of the AABB Standards for Blood Banks and Transfusion Services.

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The following table lists the contents of these Guidelines:

Contact Information

Transfusion Service Contacts

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- Laboratory Director: Michelle Palk (509) 232-4564
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- Director of Technical Services: N/A
- Medical Director: Paul Eastvold, MD (509) 434-4434
- Hospital Services: (800) 304-0181
- Courier: (800) 304-0181 or (509) 624-8591
- CLIA Number: 50D0661599
- Other (specify) :
- Other (specify) :

Definitions

Transfusion Service (TS): The laboratory who performs pretransfusion testing, and prepares and provides compatible blood components for patient transfusion.

Transfusion Facility (TF): The hospital, clinic, or other health care facility who is responsible for the ordering and administration of blood components to the patient.

Blood Supplier: The Blood Center that collects and delivers blood components to the Transfusion Service.

Must: This word is used in this document to indicate a mandatory statement.

Should: This word is used in this document to indicate a recommendation.

Critical results (also known as alert or panic values), are laboratory results that indicate a need to notify the clinical staff of a change in the patient's status or a possible life-threatening situation.

General Requirements

These Requirements are based on the AABB Standards for Blood Banks and Transfusion Services and meet the requirements of other relevant regulatory agencies.

The Transfusion Facility must have policies and procedures related to blood transfusion that are in compliance with these Standards

All manual records and specimen labels must be completed in **indelible ink**. Alternatively, records may be maintained electronically.

Positive patient identification during specimen collection and blood administration is the most critical control point to ensure a safe transfusion.

- A Blood Bank or Hospital armband must be placed on any patient receiving a transfusion.
- Patient specimens must be labeled at the bedside immediately after collection.
- All identifying information (patient's name, Facility Patient ID number, and the Barcoded Blood Bank or Hospital armband number) must be identical on the armbands, specimen label, and order documents (Transfusion Services Order, TS 003 or other equivalent document). **Orders or Specimens that do not meet this requirement will be rejected.** The Transfusion Facility will be notified as soon as possible if this situation occurs. In this event, new orders may be required and/or the specimen may need to be re-collected. Specimen re-labeling is not allowed.

Any record relating to compatibility testing and transfusion processes, including administration must be maintained **a minimum of 10 years**.

Transfusion Facility Responsibilities

The Transfusion Facility is responsible for developing and maintaining policies, processes, and validated procedures that provide instructions for transfusion activities performed at the site. These include:

- Obtaining informed consent and the associated form
- Collection of specimens
- Administration of blood products:
  - Confirming identity of the documents attached to each blood unit and patient identity prior to transfusion
  - Medical supervision of the transfusion administration process
- Maintenance of equipment owned by and used in in the Transfusion Facility.
- Process for providing emergency release of blood products that aligns with emergency services provided by the Transfusion Service
- Appropriate storage and handling of blood components with provisions for isolation/quarantine of unsuitable components if units are removed from the Transfusion Service Transport Container
- Evaluating and approving deviations from SOP within the Transfusion Facility
- Recognition and reporting of adverse reactions
- Reporting adverse events, biological product deviations, and transfusion-related fatalities to the FDA/CBER
- Reporting post transfusion infectious diseases, including physician/patient notification and a 'Lookback' procedure
- Management of Recall or Withdrawal notices
- A quality system description, policy or procedure
- Regular review of blood product utilization.
- Notification to Transfusion Service of major changes to procedures
- Staff training and competency assessment

Orders for Transfusion or Testing

Complete the Transfusion Service supplied Transfusion Service Order, TS 003 or approved Transfusion Facility equivalent form for acceptance of patient specimen. The Transfusion Facility must retain the physician orders as part of their records.

The information below is required.

- Patient name (first and last)
- Blood Bank or Hospital Armband number
- Unique patient ID number
- Patient Date of Birth
- Ordering physician
- Ordering Facility
- Testing ordered
- Blood component(s) ordered, including any special needs (e.g., irradiated)
- Specimen Collection Date/Time (may be recorded on the specimen)
- Phlebotomist ID (may be recorded on the specimen)

If possible, Transfusing Facility should include:

- History of transfusion and/or pregnancy
- Diagnosis
- Medication history
- History of transfusion reactions or known antibodies
- Pretransfusion criteria when a component is ordered
- Date and time components are needed

Specimen Collection and Labeling

Collect specimens after appropriate identification of the patient from armbands attached to the patient.

- Blood Bank armbands may be supplied by the Transfusion Service for use by the Facility, if requested.
- Armband and specimen label must include:
  - Patient's name (first and last)
  - Unique patient identification number
  - Transfusing Facility Armband number or Blood Bank number
  - The date of specimen collection must be provided on the order or on the specimen label.
- Hospital or Blood Bank armband number must be placed or written on the transfusion services order.
- The Transfusion Facility must be able to the identity the phlebotomist collecting each sample.
- A minimum of one 5-7 mL EDTA specimen should be collected for each order. Additional specimen may be required for patients with antibodies – consult with the Transfusion Service to determine what is needed.
- Specimens generally expire three (3) days after collection – a specimen collected on day one expires at midnight on day four.
  - Expiration of specimens from patients who have not been pregnant or transfused in the past three months may be extended to 14 days
- Store specimens at 2-8C.

Specimen Transport

Specimens must arrive at the Transfusion Service as soon as possible, but no later than 24 hours after collection of the specimen.

Step	Action
1	Package and ship specimens appropriately. ▪ Include the TRANSFUSION SERVICES ORDER, TS 003 inside the container, separate from the specimen(s).
2	If the sample is being shipped to the Transfusion Service, place a completed address label on the outside of the shipping box.
3	Contact a courier/transport service or Transfusion Services Representative to arrange for transport.

Evaluation of Orders

Each order received in the Transfusion Service is reviewed against defined criteria.

- Orders or specimens that lack critical information will be rejected and need to be resubmitted.

Issue and Transport of Blood Components

Blood units are packed in a sealed, temperature-validated transport container according to the type of component being issued.

- Blood Component transport is arranged by the Transfusion Service prior to transfusion time requested.
- Components requiring different storage temperatures are packed in different transport containers.

Facility may store **red blood cell** components in the Transfusion Service sealed transport container for up to 48 hours.

All other components must be transfused as soon as possible after receipt or stored appropriately.

If the Transfusing Facility	Then
Does not have approved storage equipment	Transfusion of components **must** be initiated within 4 hours of opening transport container.
	Components must be transfused within time frame approved for specimen collection and blood component ordered, if container remains sealed.
Maintains approved blood storage equipment (See the section on Blood Component Storage)	Transfer blood components to storage unit immediately after opening transport container.
	Components must be transfused within time frame approved for specimen collection and blood component ordered.
Does not have return privileges	Destroy unused blood components at the end of storage container expiration time following appropriate regulation for disposal of biohazardous material using universal precautions.
Has return privileges	Transport container may be returned to Transfusion Service if container remains sealed and in accordance with local established process.

Blood Component Storage

Store all blood components according to FDA and AABB requirements.

Component	Storage Temperature	Other Considerations
Red Blood Cells or Whole Blood	1-6C	
Plasma	≤ -20C when frozen	
	1-6C after thawing	
Platelets	20-24C	Maintain continuous gentle agitation during prolonged storage (more than 6 – 8 hours)
Cryoprecipitated AHF or Pooled Cryoprecipitated AHF (Cryo)	≤ -18C when frozen	
	20-24C after thawing	
Granulocyte Concentrate	20-24C	Requires crossmatch, and 48 hour notification prior to need.

NOTES:

- **The Transfusion Service must agree to allow the Transfusion Facility to store blood components before the Transfusion Facility begins storing components.**
- **Storage units and blood component handling by the Transfusion Facility is subject to regular inspection.**
- **Blood storage equipment must be dedicated to blood components ONLY.**
- **NO food and/or chemicals or drugs may be stored in the equipment.**
- **Components must be transfused within the expiration date of the product**
- **If frozen components are thawed by the Transfusion Facility, the proper expiration time must be assigned when the unit is thawed.**

Compatible Blood Components for Transfusion

The following tables, defined by type of component, show the appropriate donor unit ABO Group and Rh type based on the patient's blood type.

RED BLOOD CELLS	
Recipient's ABO Group	**Acceptable RBC ABO Group**
O	O
A	A or O
B	B or O
AB	AB, A, B, or O
Recipient Rh Type	**Acceptable RBC Type**
D Positive	D Positive or Negative
D Negative	D Negative (refer to NOTE)

PLASMA: No Rh Requirement	
Recipient's ABO Group	**Acceptable Component ABO Group**
O	O, A, B, or AB
A	A or AB
B	B or AB
AB	AB

PLATELETS: ABO/Rh is not generally a consideration for platelet components.

Special consideration should be given to the following patient groups:
- Frequently transfused patients
- Patients under the age of two
- Women of child bearing age (under age 56) – for Rh only

CRYOPRECIPITATE: No ABO/Rh specific criteria required for this component.

NOTE: For females under the age of 56, Rh type compatible red cell and platelet components should be provided whenever possible.
- **RhIG therapy should be considered for Rh Negative women under 56 years old who have received Rh Positive platelet products.**
- **Local policies may establish more restrictive criteria.**

Blood Administration

Blood administration is a critical aspect of patient care and must be performed by qualified staff.

- A **physician order** and patient signed **Consent Form** must be present in the patient's chart prior to beginning the transfusion.
- Each component provided by the Transfusion Service has a Compatibility/Transfusion Record attached to the component.
  - At time of issue, the component label is verified to ensure it matches the attached Compatibility/Transfusion Record.

- Immediately prior to transfusion, the Compatibility/Transfusion Record must be compared to the component label and the patient's **Barcoded Hospital or Blood Bank armband**, to ensure all information matches.
  - This must be performed by two individuals or one person using an automated verification system.
  - If the information does not match, the facility must contact the Transfusion Service and return the unit for appropriate resolution of the problem.
  - The Compatibility/Transfusion Record **must** remain attached to the donor unit until completion of the transfusion.

- During the transfusion, the patient must be monitored for signs and symptoms of transfusion reactions, including monitoring of vitals. This is especially important during the first 15-30 minutes of the transfusion.
  - If a transfusion reaction is detected during or subsequent to the transfusion, contact the Transfusion Service immediately

- Upon completion of transfusion, Transfusion Facility personnel must complete the Compatibility/Transfusion Record and place in patient's chart.
  - Properly discard the empty blood product bag and tubing in a biohazard container.
  - A copy of the completed Compatibility/Transfusion Record may be sent to the Transfusion Service to provide documentation of unit disposition.

The following table presents general transfusion information by blood component:

Criteria	Red Blood Cells	Platelets/Plasma	Granulocytes	Cryoprecipitate
Venous Access	16-22 gauge	22 gauge or larger	22 gauge or larger	22 gauge or larger
Routine in-line filter	Particulate filter 170 – 260 microns			
Leukocyte reduction filter	May be used **NOTE: Do not use on pre-storage leukocytes reduced components.**		Do not use	
Microaggregate filter	May be used			
Product volume	~ 300 mL	150-270 mL	200-300 mL	~ 100 mL
Maximum time for transfusion	4 hours			As rapidly as tolerated
Avg. time for routine transfusion	1-4 hours	30 min-1 hour	2-4 hours	
Slow rate	2 mL per minute		1 mL per minute	
Avg. rate	2-5 mL/minute	4-10 mL/minute or as tolerated	Do not give rapidly	

NOTES:

- **Normal Saline is the dilution fluid of choice. Other solutions may be approved by the Transfusion Facility (ABO compatible plasma, 5% albumin and plasma protein fraction).**
- **Do NOT add Calcium or Dextrose-containing solutions or drugs to a component or infuse in the same IV line as the blood component because they may cause hemolysis or clotting.**
- **Use of infusion pumps or blood warmers may require special tubing.**
- **Transfusion tubing should be used as defined by the vendor in their manufacturer's instructions.**

Reflex Testing

Results obtained when performing ordered tests may indicate the need for additional testing. The descriptions below are examples of reflex testing that may occur.

- If an ABO typing discrepancy is detected, it may be resolved by special antigen typing, antibody identification, or other methods.
- If the patient is Rh(D)-negative at immediate spin, weak D reflex testing may occur if the:
  - Patient history is D-positive
  - Patient is an D-negative infant of an D-negative female
  - Autologous unit tests D-positive
  - Immediate spin test result is less than 2+ in strength
- Detection of a positive antibody screen may lead to the performance of one or more antibody identification panels. Depending on the outcome of that testing, additional testing may be performed to characterize the patient's antibody(ies) including the following:
  - Treatment of red cells with enzymes or other reagents
  - Treatment of serum or plasma by dilution or chemical modification
  - Adsorption of patient serum or plasma with autologous or allogeneic red cells, other reagent red cells, or red cell stroma.
  - If a new antibody specificity is identified, special antigen typing of the patient's red blood cells for each corresponding antigen will be performed when possible.
  - If an autocontrol (autologous control cells tested along with antibody identification) is found to be reactive, one or more Direct Antiglobulin Tests (DAT) will be performed.
- A positive DAT or autocontrol may result in preparation of an eluate from the patient's red cells and subsequent antibody identification.
- If antibody identification is ordered on a patient, and initial testing is negative, no further testing is normally performed but if the referring facility reported the antibody detection as positive, additional testing may be performed using alternate method(s).
- Antibodies detected in a prenatal patient may result in titration of the patient's serum or plasma for each clinically significant antibody. If an antibody titer is ordered and antibody identification has not been performed recently, antibody identification will be performed first.
- When red blood cell products are ordered, patients may require different levels of crossmatch testing (electronic, serologic, or extended).
- If the patient has clinically significant antibodies or has a history of such antibodies, red blood cell units will be tested for the corresponding antigen and an antiglobulin crossmatch will be performed.

Critical Results

When a critical value has been obtained the Transfusion Service will notify the Transfusion Facility as soon as possible.

- If the Transfusion Facility is closed, the Transfusion Service staff will attempt to contact the Transfusion Facility physician or the person designated as being on-call for the physician.
- If the Transfusion Facility staff cannot be reached, the Transfusion Service (TS) staff will notify the TS Medical Director.

Critical Results:

- A transfusion reaction investigation that suggests any evidence of immunohematologic incompatibility, clerical error, blood administration error or specimen collection error
- Incompatible crossmatch completed after emergency release of uncrossmatched red cells
- Evidence of a delayed hemolytic transfusion reaction
- Evidence of a transfusion error
- ABO discrepancy of current type and screen specimen with previous record, not accounted for by known history
- OB patient with new clinically significant antibody identified during pregnancy
- Antibody titer in OB patient with clinically significant antibody or an increase in titer of more than 2 dilutions from a previously collected specimen
- Positive DAT on cord blood, when the mother's ABO/Rh is compatible with the infant's ABO/Rh
- Feto-maternal hemorrhage in excess of 30 mL whole blood
- Delay of availability of blood components
- Unavailable compatible blood components
- Provision of blood components utilizing massive transfusion protocol

Type and Screen

A **Type and Screen** may be ordered to obtain a current blood type and antibody screen result for a patient when there is a low likelihood for transfusion need but may not be needed for a surgical procedure.

Patient's blood specimen is tested for:
- ABO Group and Rh (D) Type
- Antibody detection of unexpected antibodies

If there are no unexpected antibodies identified and the patient does not have a history or significant antibodies, the specimen is stored in the Transfusion Service for future blood product orders and crossmatching.
- If transfusion becomes necessary, ABO/Rh compatible blood can be provided using the stored specimen.

If the patient has a positive antibody screen or a history of clinically significant antibodies, the Transfusion Service will contact the Transfusion Facility to determine the total number of components that may be needed. These units will be crossmatched for the patient in anticipation.

Emergency Requirement for Blood

Blood components may be provided for emergency use if required by the Transfusion Facility. This may include uncrossmatched group O red cell components as well as plasma, platelets, or cryoprecipitate. Specific requirements must be met by the Transfusion Facility including proper SOPs, oversight of the program, and use of specific forms.

The methods by which emergency blood components are provided vary with the capacity and need of the Transfusion Facility. Factors to consider include:
- Acuity of patients treated at the Transfusion Facility
- Capacity to provide properly monitored storage
- Distance from the Transfusion Facility

Contact the Transfusion Service if emergency blood component service is required at the Transfusion Facility.

Adverse Reactions

Signs and Symptoms of Transfusion Reactions

The following tables list the definitions and symptoms associated with types of reactions. A transfusion reaction represents any unfavorable event that may have a relationship to transfusion and should be investigated.

Immediate Transfusion Reactions

Type of Reaction	Definition	Symptoms
Transfusion associated sepsis	Bacterial contamination of transfused blood	▪ Hypotension or Hypertension ▪ Shaking chills ▪ Hemoglobinuria ▪ DIC ▪ Oliguria/anuria ▪ Fever ▪ Tachycardia ▪ Neutropenia (post transfusion)
Febrile non-hemolytic reactions	Temperature increase of > 1C (2F) associated with transfusion and without any other explanation	▪ Temperature increase > 1C or 2F ▪ Chills ▪ Rigors
Immune-mediated hemolysis	Transfused RBCs interact with pre-formed antibodies in recipient	▪ Fever ▪ Chills ▪ Pain in chest, lower back, abdomen, and/or at infusion site ▪ Hypotension ▪ Nausea ▪ Flushing ▪ Dyspnea ▪ Hemoglobinemia ▪ Hemoglobinuria ▪ Bilirubinemia/Billirubinuria ▪ Oliguria/Anuria ▪ Shock

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Signs and Symptoms of Transfusion Reactions (continued)

Type of Reaction	Definition	Symptoms
Non immune-mediated hemolysis	Red cells undergo hemolysis due to: Temperature-related damage ▪ Improper storage or shipping temperatures ▪ Malfunctioning or improper use of blood warmers (use of microwave ovens or hot waterbaths) ▪ Inadvertent freezing of red blood cells Mechanical hemolysis ▪ Roller pumps, pressure infusion pumps, pressure cuffs Addition of drugs or hypotonic solutions to blood component or IV solutions	May present with symptoms similar to immune-mediated hemolysis
Urticaria (Hives, Allergic)	Mild allergic reaction to transfusion	▪ Generalized or circumscribed rash, erythematous macular eruption ▪ Hives ▪ Itching ▪ Usually without fever
Anaphylactic reactions (occur after infusion of only a few mL of blood component)	Severe allergic reaction to transfusion in which there are systemic symptoms.	▪ Hoarseness, Stridor, wheezing, chest tightness, coughing, bronchospasm, respiratory distress ▪ Localized or disseminated urticarial reaction may be present ▪ Vascular instability, hypotension, cardiac arrhythmias, cardiac arrest ▪ Shock
Air Embolism	Air allowed into infusion equipment or blood in open system infused under pressure causing air bubble.	▪ Cough ▪ Dyspnea ▪ Chest pain ▪ Shock

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Signs and Symptoms of Transfusion Reactions (continued)

Type of Reaction	Definition	Symptoms
Transfusion-related acute lung injury (TRALI)	A new episode of acute lung injury (ALI) that occurs during or within 6 hours of a completed transfusion.	▪ Acute respiratory insufficiency in the absence of evidence of circulatory overload. ▪ No left atrial hypertension ▪ Acute onset ▪ Hypoxemia (oxygen saturation decreases to < 90% on room air) ▪ Bilateral infiltrates on frontal chest x-ray ▪ No other evidence of cardiac failure or reason for respiratory failure
Transfusion Associated Circulatory Overload (TACO)	Acute pulmonary edema due to volume overload.	▪ Dyspnea, orthopnea ▪ Severe headache ▪ Hypertension, tachycardia (usually concomitant) ▪ Congestive heart failure ▪ Acute pulmonary edema
Metabolic reactions	Metabolic derangements resulting from large-volume transfusions.	▪ Citrate toxicity ▪ Hyperkalemia ▪ Hypocalcemia ▪ Respiratory alkalosis
Hypothermia	Depressed body temperature resulting from rapid infusion of large volumes of cold blood components.	▪ Hypothermia ▪ Cardiac arrthymia or arrest ▪ Exacerbation of underlying coagulopathy
Alloimmunization to red cell antigens	▪ Primary development of antibodies to red cell antigens ▪ An anamnestic immune response of antibodies to red cell antigens that had fallen below the level of detection	▪ Fever ▪ Decreasing hemoglobin ▪ Mild jaundice ▪ Clinical signs of hemolysis ▪ Laboratory evidence of hemolysis ▪ Primary or anamnestic immune response (Primary response typically 14-30 days following transfusion; anamnestic response typically within 3-10 days following transfusion).

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Signs and Symptoms of Transfusion Reactions (continued)

Type of Reaction	Definition	Symptoms
Refractoriness to platelet transfusion (may occur in patients receiving repeated platelet transfusions and/or in women with multiple pregnancies	▪ Rapid clearance of transfused platelets ▪ Non-immune causes related to the patients underlying condition are most common: Sepsis, drugs, DIC, etc ▪ Immune causes include HLA or platelet specific antigen sensitization	Poor incremental increase in platelet count after an appropriate dose of platelets
Post transfusion purpura (usually occurs > 1 week after transfusion)	▪ Development of an antibodies to the HPA-1 platelet antigen ▪ Abrupt onset of severe thrombocytopenia an average of 9 day post transfusion (range 1-24 days)	▪ Precipitous fall in platelet count ▪ Generalized purpura
Iron overload ▪ Occurs in chronically transfused patients (> 20 units per lifetime)	Accumulation of iron and no physiologic means of excretion	▪ Interference with heart, liver or endocrine gland function ▪ Hepatic failure ▪ Cardiac toxicity
Transfusion-associated Graft-vs.-Host disease	Immunologic complication caused by engraftment and proliferation of donor lymphocytes from a non-irradiated cellular blood component in a susceptible (immunocompromised) host.	▪ Fever ▪ Erythroderma, often starting on palms, soles, earlobes, and face, ranging from edema to full blistering ▪ Enterocolitis ▪ Pancytopenia ▪ Mortality > 90%

Process for Immediate Adverse Reactions

In the event of a suspected transfusion reaction, discontinue the transfusion and evaluate the patient status.

NOTE: Initiate transfusion reaction work up prior to releasing patient from medical care. If symptoms suggest a hemolytic or anaphylactic transfusion reaction, administer appropriate treatment and keep the patient under observation until Transfusion Service reports results of the work up. If patient symptoms are severe, consider transporting patient to an Emergency Center.

<table>
<tr><th>Step</th><th colspan="2">Action</th></tr>
<tr><td>1</td><td colspan="2">Stop transfusion.
▪ Do not disconnect the blood component.
▪ Keep IV line open with slow infusion of saline.
▪ Treatment of hypotension and promotion of adequate renal blood flow are primary concerns.
▪ Avoid over-hydration.
▪ Ensure adequate renal perfusion by monitoring measurement of urine output to achieve a rate above 100 mL/hour in adults, or as appropriate.</td></tr>
<tr><td>2</td><td colspan="2">Notify the patient’s physician immediately.</td></tr>
<tr><td rowspan="3">3</td><td>If</td><td>Then</td></tr>
<tr><td>Physician orders a Transfusion Reaction Work up</td><td>Discontinue the transfusion.
▪ Document in patient’s chart.
▪ Notify Transfusion Service.
▪ Go to Step 4.</td></tr>
<tr><td>Physician does not order a Transfusion Reaction Work-up but a transfusion reaction is suspected.</td><td>▪ Continue with transfusion following physician’s orders.
▪ Make note in patient’s chart.
▪ Go to Step 4</td></tr>
<tr><td>4</td><td colspan="2">Complete the Report of Transfusion Reaction, TS 009 or approved Transfusion Facility equivalent.</td></tr>
<tr><td>5</td><td colspan="2">Draw one 7 mL EDTA and one 7 mL Red Top specimen carefully to avoid hemolysis. Label the specimens according to the Specimen Collection and Labeling section above.</td></tr>
<tr><td>6</td><td colspan="2">If symptoms include hypotension and fever (for red cells or platelets), bacterial contamination is a possibility.
▪ Draw a blood culture specimen immediately and send to your microbiology reference laboratory for culture.</td></tr>
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Process for Immediate Adverse Reactions (continued)

Step	Action
7	Submit blood component bag and attached infusion line/IV solutions, post reaction blood specimens to Transfusion Service, along with the Report of Transfusion Reaction, TS 009, or approved Transfusion Facility equivalent.
8	Transfusion Service notifies Facility and physician verbally, as soon as evidence of a hemolytic transfusion reaction is ruled out.
9	Upon completion of Workup, Transfusion Service notifies Facility and physician verbally, with follow-up written document of results.

NOTE: If additional components are required subsequent to the Transfusion Reaction Work up, send a new patient specimen and a Transfusion Service Order to the Transfusion Service.

Process for Other Adverse Reactions

- Post transfusion, the recipient may develop symptoms related to other adverse reactions:
  - Delayed transfusion reaction
  - Transfusion transmitted diseases or associated infections
- If symptoms develop, notify Transfusion Service.
  - Complete a Report of Transfusion Reaction, TS 009, or approved Transfusion Facility equivalent for symptoms relating to a delayed transfusion reaction or a transfusion-transmitted infection.
- The forms and instructions for completing the forms are obtained from the Transfusion Service.
